

**HUNTERS POINT NAVAL SHIPYARD
BASE REALIGNMENT AND CLOSURE CLEANUP TEAM
MEETING NOTES
June 5, 2014**

These notes summarize the meeting of the Navy Base Realignment and Closure (BRAC) Cleanup Team (BCT) for Hunters Point Naval Shipyard (HPNS). The meeting was held at 10:00 a.m. on June 5, 2014 at CH2M HILL's office in Oakland, California.

I. Introductions, Meeting Guidelines, Agenda Review, and Meeting Minutes

Catherine Haran (Navy) began with introductions; participants are listed on the last page of this summary. The action items from April were completed. Ms. Haran introduced Lily Lee as the new representative from the U.S. Environmental Protection Agency (USEPA) for the HPNS project. Ms. Haran is working with the City of San Francisco (City) to divide Parcel B, so that a majority of the parcel can be transferred to the City in 2015. The Navy would like to move the community meetings for 2015 to earlier in the month to coincide with the new BCT meeting dates. The Navy would appreciate any feedback from the regulatory agencies.

II. Radiological Program Update (Hamide Kayaci, Navy)

- The Parcel C Phase II project includes construction of the underground storm drain system along Lockwood Street that is expected to be completed in summer 2014. The Navy has excavated 29 trench units, of which 24 have been backfilled and restored, 3 are currently being backfilled and restored, and 2 are radiologically cleared, turned over to remedial action (RA) contractor, and subsequently backfilled following the Parcel C RA.
- At Buildings 211 and 253 there are 259 survey units within the buildings; of those 151 have met release criteria, 32 exceeded release criteria, and 76 are in the process of being surveyed. Ryan Miya (DTSC) asked what type of survey units exceeded the release criteria. Ms. Kayaci will include that information in next month's presentation.
- In Parcel D-1, the Navy is awaiting unrestricted radiological release for the Gun Mole Pier following California Department of Public Health (CDPH) analysis of confirmation samples and confirmation surveys.
- Additionally, the Navy has completed scanning and sampling at 17 survey units and the survey packages are in Navy review. Field work is anticipated to begin onsite on July 12, 2014 and will include the Ship Berth 14 survey, disposal of the wooden rail ties, backfill of the open sanitary and storm drain trenches, and deconstruction and removal of radiological screening yard (RSY)-2.
- In Parcel E, the Navy has completed removal of 7,642 linear feet of the sanitary and storm drain systems. Approximately 26,945 linear feet of piping still remains in Parcel E/E-2 that needs to be removed. John Chesnutt (USEPA) asked how many linear feet of sewer and storm drain line has been removed from HPNS. Ms. Haran responded that the Navy will provide the total in future presentations.

III. Update on the Remedial Design for Parcel E-2 (Lara Urizar, Navy)

- The Navy wanted to review key comments received from the regulatory agencies on the draft final remedial design (RD) package. Additionally, the Navy offered to have a working meeting following the BCT meeting to help further resolve technical questions on the document.
- USEPA submitted a comment regarding the four “seed” acceleration time history records which were selected for use in the seismic response analysis. The Navy revised Section 3.2 and portions of Appendix E of the document to better explain why these records are appropriate for predicting seismic response at Parcel E-2.
- The City did not agree that earthquake magnitude is the most important factor in selecting and spectrally matching acceleration time histories. The City suggested using seismic records from Pump Station 10 (PS-10) that were recorded during the 2002 Denali, Alaska earthquake that measured 7.9. The Navy feels that magnitude is the most important parameter in selecting the seed acceleration time histories because magnitude is directly proportional to the duration of strong shaking. The Navy performed additional analysis using the PS-10 acceleration time history records and the results are included in the new attachment to Appendix E. The results when using PS-10 demonstrate that the seismic design for Parcel E-2 is adequately conservative.
- The USEPA requested that the Navy substantiate that the lateral spreading is likely to be localized and unlikely to be critical to the overall stability of the landfill. The Navy revised the cross sections in Attachment E1 to identify approximate extent of potentially liquefiable soil layers. These layers are primarily confined to the nearshore area and do not extend more than 150 feet inland. This information supports that the integrity of the final cover system (including the liner) would not be affected by potential lateral spreading resulting from localized liquefaction.
- The City requested that the Navy reconsider the need for 450-pound rocks in the revetment wall construction. The Navy used U.S. Army Corps of Engineers guidance that indicates stones between 400 and 500 pounds are needed to withstand vandalism, theft, and inadvertent movement. There will be smaller rock used in the revetment wall but the median rock size will be 450 pounds. Additionally, the Navy noted that the revetment wall along the shoreline will not be planted.
- The Navy will draft response to comments (RTCs) and submit revised sections of the report to the regulatory agencies for an over-the-shoulder review on July 1, 2014.

IV. IR-03 Pilot Study Update (Danielle Janda, Navy)

- The In-Situ Solidification/Stabilization (ISS) Design was submitted to the BCT on April 30, 2014. The Navy is submitting the regulatory agency RTCs on June 6, 2014 and would like to submit the Final ISS Design Report and begin fieldwork on June 16, 2014.

- The Navy gave an update on the in-situ thermal remediation (ISTR) treatment system. As of May 2014, multi-phase extraction (MPE) wells 10, 11, and 13 have been converted to injection wells to help with recirculation within the system.
- As of May 26, 2014, 1,200 gallons of non-aqueous phase liquid (NAPL) have been extracted. The system is currently recirculating 4,000 to 12,000 gallons per day. The Navy is proposing to continue operating the system with these conditions for the next month. The BCT members asked to be notified when the system starts to lose effectiveness, so that the BCT can have a call and decide as a group when to shut down the system.
- The Navy will set up a call with the BCT on June 11, 2014 to further discuss considerations for the ISS Design.

V. Parcel E-2 Hot Spot Removal Action Update (Lara Urizar, Navy)

- The Navy is performing onsite biological observations of the mechanized and intrusive work as part of the remedial action pre-characterization effort. On April 8, 2014, a killdeer nest was discovered adjacent to the Panhandle intertidal zone. The killdeer hatchlings were observed in the nest on April 29, 2014 and had fledged by May 1, 2014. The buffer zone was subsequently removed following fledging.
- The Navy has completed collecting pre-excavation sidewall samples at a minimum frequency of one sample per 50 linear feet of the proposed excavation sidewall lengths and one sample for every 5 vertical feet of the proposed excavation sidewall depths. Floor samples are collected at either one sample per 400 square feet (Tiers 1, 2 adjacent to the landfill, and 4) or one sample per 900 square feet (Tiers 3, 5 and 2 in the Panhandle area) depending on which Tier the samples are collected in.
- Based on the sample results, bottom samples exceeding the hot spot goal were bound vertically via deeper samples at the same location. If a sidewall sample had an exceedance above the hot spot goal, the Navy advanced a step-out sample laterally and collected a sample from the same depth as the exceedance. Some of the exceedances were able to be bounded while the Navy was still in the field, and other locations will be further sampled when the Navy remobilizes to the site on June 27, 2014.
- A total of 260 pre-characterization borings were advanced: 213 original boring locations, 32 step-out borings (horizontal bounding), and 15 resample locations (vertical bounding). During the June 2014 follow up sampling, an additional 25 to 30 borings will need to be advanced.
- Based on the results of the pre-characterization sampling, soil contamination was not found at excavations T4-EX-1 and T4-EX-4 and these will be removed from consideration. Current estimates based on the step-out sampling indicate that the Navy will need to remove approximately 32,000 cubic yards of soil from the site. Additionally, concentrations of petroleum, lead and copper at excavation T5-EX-1 likely extend offsite to the northwest.

- The Draft Characterization Technical Memorandum will be submitted to the BCT in August 2014 and the Draft Hot Spot Remedial Action Completion Report (RACR) will be submitted to the BCT in June 2015.

VI. RU-C2 Remedial Action Project Update (Tony Konzen, Navy)

- The Navy presented a summary of the 6-month post-injection sampling results at C2-1 and C2-2, the excavations at Buildings 251 and 258, the soil vapor sampling planned north of Building 251, and the schedule for installing the soil-vapor extraction (SVE) system.
- In A aquifer for groundwater plume C2-2, concentrations of carbon tetrachloride were reduced from baseline concentrations at 3 of 4 sampling locations, chloroform at 2 of 3 sampling locations, and trichloroethylene (TCE) at 2 of 3 sampling locations. Concentrations of carbon tetrachloride exceed the remedial goal at two locations while chloroform exceeds the remedial goal at one location.
- In B aquifer for groundwater plume C2-2, concentrations of carbon tetrachloride were reduced from baseline concentrations at 2 of 4 sampling locations, chloroform at 3 of 4 sampling locations, and TCE at 2 of 3 sampling locations.
- In A aquifer for groundwater plume C2-1, concentrations of tetrachloroethylene (PCE) were reduced from baseline concentrations at 4 of 7 sampling locations, 1,4-dichlorobenzene at 5 of 6 sampling locations, benzene at 2 of 3 sampling locations, vinyl chloride at 2 of 3 sampling locations, and trans-1,2-dichloroethene at 1 of 1 sampling location.
- In B aquifer for groundwater plume C2-1, concentrations of PCE were reduced from baseline concentrations at 4 of 6 sampling locations, 1,4-dichlorobenzene at 2 of 4 sampling locations, chloroform at 1 of 6 sampling locations, carbon tetrachloride at 3 of 4 sampling locations, and vinyl chloride at 1 of 1 sampling location.
- The Navy will continue to conduct post-injection groundwater monitoring events and will install and begin operations of the SVE system in July 2014.

VII. Groundwater Exceedances (Tony Konzen, Navy)

- The Navy provides an exceedances memorandum following each semiannual sampling event followed by a semiannual groundwater monitoring report.
- In Parcel B, 17 of 18 wells with remedial goals were sampled in first quarter 2014 (1 well was decommissioned). There were 5 wells that had exceedances including mercury, TCE, and vinyl chloride. A remedial action to address groundwater contamination is ongoing; therefore, more information will be collected on residual mercury transport in groundwater and a mass flux evaluation for mercury will be conducted.
- In Parcel C at RU-C1, 7 of 8 wells were sampled (one well was inaccessible) and 4 wells had exceedances including TCE, vinyl chloride and hexavalent chromium. A remedial action to address groundwater contamination is ongoing in the same footprint.

- In Parcel C at RU-C5, all 15 wells were sampled and 8 wells had exceedances including benzene, chlorobenzene, 1,4-dichlorobenzene, 2,4-dimethylphenol, 4-methylphenol, naphthalene, PCE, TCE, and vinyl chloride. A remedial action to address groundwater contamination is ongoing.
- In Parcel C at RU-C2, all 3 wells were sampled and 2 wells had exceedances including 1,4-dichlorobenzene, benzene, carbon tetrachloride, chlorobenzene, chloroform, and TCE. A remedial action to address groundwater contamination is ongoing.
- In Parcel C at RU-C4, 2 of 5 wells were sampled (three were inaccessible) and 1 well had an exceedance of TCE. A remedial action to address groundwater contamination is ongoing.
- In Parcel G, 3 of 4 wells with remedial goals were sampled and 2 wells had exceedances including carbon tetrachloride, chloroform, PCE, and TCE. The remedial action (durable cover) has been completed in this area.
- In Parcel D-1, 2 of 4 wells with remedial goals were sampled. No wells had exceedances, which is similar to results from last year. A groundwater treatability study in this area successfully reduced groundwater concentrations to below remedial goals in the wells.
- In Parcel E, 31 of 38 wells were sampled (7 wells were inaccessible) and 8 wells had exceedances including arsenic, 1,2-dichloroethene, ammonia, and cyanide. Remedial actions have not yet begun.
- In Parcel E-2, all 13 wells were sampled and 6 wells had exceedances including arsenic, copper, nickel, zinc, 1,1-dichloroethane, 1,2-dichloroethene, Aroclor-1260, TCE, petroleum, and vinyl chloride. Thermal treatment is currently underway at IR03.
- In Parcel UC-2, all 3 wells were sampled and 1 well had exceedances of carbon tetrachloride and chloroform. Monitored natural attenuation is the groundwater remedial action as specified in the Record of Decision. The City asked how deep groundwater is at UC-2. The Navy will notify the City of the groundwater depth at UC-2 after reviewing data for the site.

IX. Community Involvement Update (Catherine Haran, Navy)

- The Annual Factsheet is being finalized and prepared for distribution.
- The Navy is currently developing a radiological program factsheet.
- The Navy is planning for and preparing for the bus tour on June 28, 2014. Outreach will include an email, posted flyers, and hand-delivered flyers.
- The Navy also responded to some community comments that were received via email. The BCT members requested that the Navy forward to them the community comment from Marie Harrison concerning the waste management practices.

IX. Action Items/Future Meetings (Catherine Haran, Navy)

New Action Items:

- The Navy will include more detail regarding the types of survey units that did not meet release criteria at Buildings 211 and 253 in next month's BCT meeting presentation.
- The Navy will notify the BCT members of the number of miles of sewer and storm drain lines that have been removed to date and the total estimated length that will be removed upon completion of the project.
- The Navy will notify the City of San Francisco of the groundwater depth at Parcel UC-2.
- The Navy will forward to the BCT members the community member's comment concerning waste disposal practices at HPNS.

Next Meetings:

- The July BCT meeting will be held on July 2, 2014.

Meeting participants:

Jeff Austin, Geosyntec

Doug Bielskis, ERRG

Saul Bloom, ArcEcology

Karla Brasaemle, TechLaw

Pat Brooks, Navy*

Amy Brownell, City of SF

John Chestnut, USEPA

Jamie Egan, CH2M HILL

Mitra Fattahipour, Insight/CMD*

Yvonne Fong, USEPA*

Catherine Haran, Navy

Bob Hunt, Alliance*

Mahbub Hussain, Navy*

Danielle Janda, Navy*

Hamide Kayaci, Navy*

Tim Kemper, Shaw/CB&I

Ed Kilduff, CE2-Kleinfelder JV*

Nathan King, Water Board

Anthony Konzen, Navy*

Lily Lee, USEPA

Tina Low, Water Board

Leslie Lundgren, CH2M HILL

Dave Marks, Insight/CDM*

Ryan Miya, DTSC

Tamzen MacBeth, CDM*

Tim Mower, Tetra Tech EMI*

Alec Naugle, Water Board

Yash Nyznyk, CDM Smith*

Roger Olsen, CDM Smith*

Reginald Paulding, Navy*

John Sourial, ERRG

Lara Urizar, Navy

Brett Womack, ITSI

* Indicates attendee participated via telephone